



AF/28

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Application Ser. No. 09/768,372

Art Unit 2827

Filed 1/23/01

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Inventors Blackshear et al

Atty Dkt No YOR919980001US2

For: STRESS ACCOMMODATION IN ELECTRONIC DEVICE
INTERCONNECT TECHNOLOGY FOR MILLIMETER CONTACT LOCATIONS

After Final Response to the 2/11/03 Final Rejection

Commissioner for Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231
Sir:

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In response to the 2/11/03 final rejection kindly make of record the following remarks in a request for reconsideration.

In the 2/11/03 rejection the two independent claims 1 and 7 together with dependent claims 2, 4, and 8 stand rejected as anticipated under 35USC102 by the Dordi reference of record, and the remaining dependent claims were considered to be patentable if rewritten in independent form with all limitations of the base claim and any intervening claims.

In this after final response it is respectfully urged that in the application of the claim limitations to the Dordi reference some elements of applicants' structure that operate to distinguish over Dordi are not receiving their full weight. It is further respectfully requested that the rejection be reconsidered in the light of the facts here set forth and an advisory action be provided with respect to that "102" rejection which will affect handling of the allowable subject matter.

In this invention control of the stress due to expansion mismatch is approached differently, the

array will have groups of contacts arranged as interfaces, each interface structurally will have two types of portions, one type for the high density electrical contacting and the other type for stress accommodation. Every interface will have at least one of each type portion and the portions are related in that the orientation of the stress accommodation portion is selectable and the contact area of the stress accommodation type portion will be approximately the same as the total contact area of all the high density contacts in the interface.

Considering claim 1 in the light of the specification and drawings. Spec. Dwgs.
pages 7-10 Figs 1 - 4

1. In an array of conductive joints between signal pads
on a surface of an integrated circuit member of a material elements 4 & 5
having a first thermal responsiveness and corresponding contacts on an aligned
wiring support member of a material having a second thermal responsiveness,
the improvement comprising:
an interface having first and second portions, elements 1 and 2 Fig 2
said first portion of said interface containing an array of elongated element 1
conductive joint members each having a contacting area elements 10 with area 6
made up of a length contacting dimension and a width contacting
dimension and with said length contacting dimension being longer
than said width dimension , and,
said second portion of said interface having a contacting area Figs 1-4
approximating the contacting area of said conductive joint members pages 7 - 10
of said first portion and so positioned to accommodate expansion
mismatch stresses in said conductive joint members.

Considering independent claim 7

Specification Dwgs.

7. An improvement in an array of conductive joints between pads on a surface of an integrated circuit member of a material having a first thermal expansion responsiveness and corresponding contacts on an aligned wiring support member of a material having a second thermal responsiveness,

Pages 7 - 10 Figs 1 - 4

comprising in combination:

an interface between said pads and said contacts,

having first and second portions,

elements 1 & 2 Figs 2, & 4

said first portion of said interface containing an array of elongated conductive joint members each having a contacting area made up of a length contacting dimension and a width contacting dimension and with said length contacting dimension being longer than said width dimension,

pages 7 - 10 Figs 2 & 4

said array of conductive joint members each being oriented with said length contacting length dimension in a common direction, and,

Figs 2, 4

said second portion of said interface having a contacting area approximating the contacting area of said conductive joint members of said first portion and so positioned to accommodate expansion mismatch stresses in said conductive joint members.

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It is submitted for consideration that the Dordi reference doesn't teach the concept of interfaces and the relationship of contact areas in the interface portions and that these are distinguishing features over the Dordi reference sufficient that the rejection should be withdrawn and the application should be in condition for allowance.

Respectfully submitted,

Alvin J. Riddles 4/11/03
Alvin J. Riddles

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